

# CHAPTER 1

## PROJECT MANAGEMENT

### WHAT ARE THE BASIC PRINCIPLES AND OBJECTIVES OF PROJECT MANAGEMENT?

1. Managing and controlling effort to acquire a new capability or to improve an existing capability to meet a mission need.
2. Balancing and controlling costs, and schedule with requirements.
3. Organizing and controlling work.

### WHY IS PROJECT MANAGEMENT IMPORTANT?

The Department has billions of dollars invested in projects, which are planned, or under construction. To complete these projects successfully, safely and within budget, the Department is significantly revising its project management policies and practices to increase accountability and improve performance within the Department's project management systems. The objective is to provide effective program and project acquisition systems such that DOE projects are delivered on time, within budget, and fully capable of mission performance.

### WHAT IS THE DEPARTMENT DOING ABOUT PROJECT MANAGEMENT?

On June 25, 1999, the Deputy Secretary announced by memorandum the beginning

of a DOE-wide initiative to reform the way the Department manages projects by strengthening accountability for project performance, and thereby, improving project performance. A copy of this memorandum may be viewed at the following web site which is also listed in appendix B of this Reference Book:

<http://home.doe.gov/news/releases99/junpr/pr99163.htm>

The Department is taking additional aggressive and comprehensive actions to achieve strong project management capabilities. As DOE's Chief Operating Officer and Acquisition Executive, the Deputy Secretary directed the following actions be taken:

**1. Establish a Strong Corporate Project Management Organization in the Office of the Chief Financial Officer to strengthen project management direction and oversight.** The Office of Engineering and Construction Management (OECM) will be responsible for driving change in the Department's project management system and for supporting the Departments project managers. This organization will be closely aligned with contract reform initiatives. At the core, this agency contracts for the vast majority of required products and services. This means that the coordination of our "project" management and "contract" management functions must be improved. This integration, along with improvements in our financial reporting and control systems will be crucial to overall success.

The OECM will assess and restructure the Energy System Acquisition Advisory Board (ESAAB). A process will be established for evaluating projects prior to key critical decision points, e.g., approving a baseline, initiating construction. Information for critical decision points on projects and systems over \$400 million will be submitted to the ESAAB for review and approval by the Acquisition Executive. The Office will also provide assistance to the Program Offices in establishing their decision processes on smaller projects.

**2. Establish Project Management, Tracking and Control Systems.** The OECM will establish a project management tracking and control system. The integrated project management tracking system will include earned value and other measures of project performance. All projects valued at \$20 million or more in total costs (an estimated 200 projects) will be added. A tracking and control system will also be established for corrective actions related to these projects.

**3. Establish the Chief Operations Officer's Watch List for projects with significant issues or emerging problems.** These projects will be subject to defined corporate reporting requirements and will only be released as progress on corrective actions warrants. For projects where corrective actions are not being made in a timely fashion, the Department may withhold, redirect, or withdraw funding, or initiate other contractual actions which may include key personnel changes, fee reductions, and/or contract scope reductions.

**4. Strengthen line management accountability for project management Results.** Each Program Secretarial Officer ( PSO) will establish a project management office within their organization reporting directly to them. Each office will be staffed by appropriately skilled personnel who will keep the PSO fully informed on project management performance, including implementation of corrective actions and will coordinate with the OECM development team to ensure effective and consistent development and implementation of Department policies throughout the line.

The PSO ultimately is responsible for success of projects within their programs. This has been reinforced by the recent restructuring of the Department. Successful performance of a project depends on skillful DOE and contractor project management with clear definition of Headquarters and Field, (federal and contractor project managers), roles and responsibilities

Line managers, extending from the Secretary to the PSO, the Field Manager and contractor executives, are the individuals held responsible and accountable for successfully developing, executing, and managing our projects within cost, schedule, and scope commitments. They are also expected to ensure that project management will incorporate integrated safety management principles and functions. The initiatives in this memorandum are intended to strengthen the PSO ability to manage projects without calling into question either their authority or ultimate responsibility.

In coordination with its project management office, each PSO will provide an assessment of their organizations project management

system, along with their plan to correct identified deficiencies or establish management improvements, as appropriate. These assessments and action plans will be compiled and evaluated in the context of a working management system for the Department by the OECM. This system will incorporate reviews of project management issues and the status of corrective action plans, to ensure that accountability is being maintained.

**5. Establish greater contractor accountability for project management.**

The Department will assess issues involved in contractor project management and steps required to improve performance in acquisition and contracting. Contractor performance measures and incentives must be enhanced to focus on key project success factors, not the process itself. Roles and responsibilities of the DOE project management team must also be clearly defined relative to the contractor project management team.

**6. Revise the Criteria and Funding Processes Related to a DOE Project.**

OECM will continue to work with OMB and Congressional Committees to find ways to improve project management such as establishing project baselines after 35% of the design is completed to ensure realism and credibility and establishing a design pool funding process similar to DOD's to avoid costly delays.

**7. Develop a Longer Term Program for Institutional Capacity Building.** The OECM, will be responsible for strengthening DOE's project management capabilities, including both Federal and contractor staff. A plan will be developed to

address role definition, education, qualifications and skills required of its project managers and to assess the Departments current capabilities. The Project Management Development Program, including consideration of certification requirements, will be developed during the next fiscal year. The plan will also address methods and systems to be developed and institutionalized during the next year for project planning, controls and reporting, and will help determine the longer-term structure and staffing requirements of the Project Management Office. The focus will be on the implementation of management reforms rather than on the controls from poor management.

These initiatives are being addressed in many ways including revising existing orders and issuing new orders as required. The Department issued an Interim Energy Systems Acquisition Instruction to serve as policy guidance during the first phase of the Department's effort to streamline and improve the management of the Department's engineering, construction and environmental projects. The instruction was disseminated under the Deputy Secretary's memorandum of January 3, 2000 and immediately effects current projects. A DOE order and manual are being developed and this Chapter will be revised upon their issuance.

**How will this effort affect DOE Order 430.1?**

This proposed order would replace the project management requirements in DOE Order 430.1, "Life-Cycle Asset Management," and implement the Deputy

Secretary's June 25, 1999, Project Management Reform Initiative, providing a description of the Department's Project Management System and the mandatory requirements for project planning, control, and reporting under that system. The proposed new order will address program specific requirements such as Critical Decision approval levels, change control thresholds, organizational roles and responsibilities, and project reviews. An interim instruction has been issued to provide direction regarding decision authority, ESAAB functions and project reviews. This interim instruction supercedes sections of DOE Order 430.1 which conflict with the interim instruction.

## **WHAT IS A GENERAL DESCRIPTION OF THE PROCESSES UNDER THE PROPOSED NEW PROJECT MANAGEMENT ORDER?**

**What will the proposed project management order cover?** The order will apply to capital asset projects of all sizes, whether funded by capital or operating funds.<sup>1</sup> Office of Management and Budget Circular A-11, Part 3, Planning, Budgeting and Acquisition of Fixed Assets, Section 300.4, Definitions, states that fixed assets include:

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<sup>1</sup>Office of Management and Budget Capital Programming Guide 1.0, Appendix 1, July 1997; and Office of Management and Budget Circular A-11

“...construction, major rehabilitation, and the purchase of fixed assets such as land, buildings, or equipment, including information technology, owned by the Federal Government.”

This proposed new “Project Management Order” would include both DOE requirements and requirements intended for contractors. The DOE program offices and Field/Operations Offices would support the CO in identifying the requirements appropriate for inclusion in solicitations as well as in new and existing contracts.

### **Will this proposed order be mandatory once it is approved?**

The Project Management System requirements in this proposed new order would be mandatory for DOE and for its prime contracts.

### **What issues will the proposed order cover?**

Among other topics the new order and manual will cover the following areas:

- Acquisition Planning and Strategy
- Project Execution Planning
- Baseline Development
- Baseline Change Control
- Critical Decisions
- Project Risk Management
- Systems Engineering
- Configuration Management
- Design Documentation
- Value Engineering
- Cost Estimates
- Schedules

- Project Control System
- Project Performance Reporting
- Environmental Requirements
- Quality Assurance
- Integrated Safety Management
- Project Validation
- Independent Reviews and Oversight
- Project Transition
- Project Closeout
- Project Manager Development and Career Path Management

The section of the proposed order on the Project Control System would establish the requirement that Earned Value Management Systems be implemented on all projects with a Total Project Cost greater than or equal to \$20 million for control of project cost and schedule performance during the project execution phase. Implementation of an Earned Value Management System by DOE prime contractors is not required on time-and-materials contracts, firm-fixed-price contracts, or level-of-effort support contracts, if included in a project. However, these other contractors must have adequate control systems that suit the nature of the project and reflect good business practices.

#### **Adequacy of Contractor Project**

**Management Systems:** The adequacy of the contractor Project Management System, as measured against the project management requirements established in the contract, must be confirmed at the start of the Project Execution Phase (when project performance is being measured against the Preliminary Baseline) by the CO with support from the cognizant DOE program office and/or field office as appropriate. Adequacy would be confirmed using reviews of contractor Project Management System Descriptions,

management procedures, and management system operations.

Corrective action plans resulting from DOE reviews of contractor Project Management Systems would be tracked until the CO confirms that all open issues are closed. These corrective actions may result in an update to the contractor Project Management System Description, management procedures, and management system operations. The contractor would be accountable to DOE field project management for compliance with all applicable contractor management system requirements in this new DOE Project Management Order.

#### **Will this chapter be updated to reflect approval of the “Project Management “Order?”**

The Department is currently formalizing policy in the area of Project Management. As soon as the proposed order has been approved through the DOE directives process, this chapter will be updated to reflect the requirements of the approved order. Additionally, sections will be added to the chapter to delineate the Project Management roles and responsibilities of the members of the contract administration team, and a section will be added listing any orders, manuals, policy statements, and applicable Federal Acquisition Regulation and Department of Energy Acquisition Regulations clauses.

**DO YOU HAVE ANY COMMENTS OR SUGGESTIONS FOR  
IMPROVING THIS CHAPTER OR THE BOOK? IF SO, PLEASE  
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